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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,732	04/26/2005	Marcus Burgel	2002p16720WOUS	6472

7590 02/20/2008  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
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BLACK, LINH

ART UNIT	PAPER NUMBER
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2163

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02/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/532,732

Applicant(s)

BURGEL ET AL.

Examiner

LINH BLACK

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

This communication is in response to the Applicants' Arguments dated 11/30/07.

Claims 1-6 are cancelled. Claims 7-14 are pending in the application. Claims 7 and 11 are independent claims.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 11 discloses "A system providing for downward compatibility between new and old versions of data structures of object models and/or data models each organized according to a different version of a schema...the old version, the foregoing combination enabling the old version schema to interpret data structures of the new version of the schema, and thereby providing downward compatibility between the new and old versions". The limitation "system" here does not explicitly or implicitly/inherently teach that the claim is directed to a machine. There is not at least one the claimed limitations provides a physical part of a device or a combination of devices to be a machine within the meaning of 101.

Examiner finds no teaching in the specification that discloses the system in claim 1 relating to physical machine(s). Thus, claims 11-14 are rejected as a system of software per se, failing to fall within a statutory category of the invention.

In the specification, page 5, second paragraph, Applicants teach "For the transition from one XML schema version to the next, XML Schema makes various means available. To enable element definitions to be expanded without changing the name of an element, XML Schema provides the means of redefinition of element types. The idea of a redefinition is to undertake an "inheritance" without changing the name of the element type. The mechanism of the redefinition also includes the transfer of non-redefined types from the old schema definition. I.e. through the use of the redefinition an "Include-mechanism" to transfer the old types is simultaneously initiated. This also supports an upward-compatible further development of a schema. The implementation of the transition from one XML schema version to the next is described below with reference to a schematic example. The XML Schema versions, the associated namespaces and the type definitions in the relevant XML schema are to be considered here. The versioning of the schemas will be mapped exclusively via attributes. In this case the attribute "version" of the element "xsd:schema" of XML Schema is used. In addition the date of the schema version can be stored in the "annotations" for the schema via an attribute "version date"

The types "Project", "HW", "Comm" are only used by way of example and stand for any types. All three types are present in both Version 1.0 and also in Version 2.0. The types "HW" and "Comm" remain unchanged. The type "Project" is changed via redefinition in Version 2.0. In addition the new type Monitoring is defined in Version 2.0. No new namespace was introduced for a new schema version. In addition the local names of

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the types were preserved. Thus the names of the types already present in Version 1.0 have not changed overall. The correct data for a new schema for which the content corresponds to structures of the old schemas, is also correct with regard to the old schemas. The schema evolution is downward-compatible. Since the new schema has been produced by "derivation" from the old schema, the schema evolution is also upward-compatible. This means that the schema evolution is upward and downward - compatible."

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore et al. (6990513), in view of Lim et al. (2004/0064826).

As per claims 7 and 11, Belfiore et al. teach

A method for providing compatibility between new and old versions of a schema – col.

14, lines 35-65 ("allow applications to dynamically support new schemas by providing

shared mechanisms to recognize data and by transforming data in one schema to

another schema. The schema transformation services make it easier for applications to

understand a wide range of schemas, increase robustness and consistency across applications, and allow applications to dynamically support new schemas by providing shared mechanisms to recognize data and to transform data in one schema into data in another schema").

that are used for defining structures of object and/or data models, wherein such schemas describe data structures, each schema having a namespace, type names, and element names – col. 3, lines 14-55 (schema is a set of rules or standards that define how a particular type of data can be structured); col. 14, line 54 to col. 15, line 17 ("For XML, the schema recognizer service queries the schema store 290 using a standard storage query service 294 to determine the schema type, using the XML namespaces to narrow the list of possibilities... Schema persisted in the schema store 290 may describe the applications, scripts, components, method bindings or data sources that can be used to act on or represent a specific schema type. For example, an application may provide a standard user interface to display data of a specific schema type...")

characterizing both an old version and a new version of a schema by assigning a version of each the schema to a first attribute of the schema – col. 22, lines 27-45; col. 42, line 5-64.

allowing expansion of the types and elements while maintaining the respective type names or element names – col. 12, line 55 to col. 13, line 67 (the core schemas are extendible...the schema store may contain descriptions of core schema types and mappings between known schema and core schema types...the schemas are XML

schemas and are described in the schema store by a schema description language...XSD which may be extended for use with the present invention).

accepting without change unexpanded types and elements present in the old version of the schema, into the new version of the schema so that the new and the old schema versions are both upward compatible and downward compatible – col. 13, lines 32-67; col. 14, line 23 to col. 15, line 5 (downward compatible: dynamically support new schemas by providing shared mechanisms to recognize data and to transform data in one schema into data in another schema...); col. 22, lines 18-45 (backward/upward compatible: the event schema is extensible. A strong relationship model based on inheritance allows backward compatible versioning...) However, Belfiore et al. do not seem to teach maintaining the namespace, type names, and element names of each version of the schema independent of the version. Lim et al. teach XML schema provides a standardized way of specifying data types and also provide possibility of inheritance...- paragraph 24; XML schema provides the ability to specify constraints for data types and inheritance in addition to name(s), value(s), and relation(s)...allowing the programmer to apply the structural constraints of the schema directly into the target program's object class structure or tree - pars. 49-51; allow generation of classes which inherit from each other, for example, from a direct mapping to inheritance/polymorphism in XML schema...in the case of namespaces (i.e., packages), which may provide an additional level of encapsulation, additional declarations may be made to group a namespace of one or more elements together...- pars. 80-81; an example of XML schema for this conceptual structure is provided in Table 2, wherein the reference to the

XML namespace is mainly to ensure compatibility with future generations of the schema - pars. 84-85 wherein name is in the first attribute.

Paragraphs 12-13 teach "...one object class may be derived from another class and "inherit" its properties and methods but add further limitations, capabilities, or detail, or override specific functions; for example... Because subclassing or inheritance makes it possible to make new classes that extend and modify classes available to the system, new capabilities are created without having to start from scratch... to access a new function, a programmer could call the same function with the same name, but the subclass may have a different, overriding implementation behind the same name. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Belfiore et al.'s teaching and Lim's et al.'s teaching in order to allow the compatibility of generations/versions of schema.

As per claims 8 and 12, Belfiore et al. teach

wherein a calendar date indicative of the new or old version can be assigned via a second attribute for each version of the schema – col. 12, lines 47-54; col. 45, lines 15-18.

As per claims 9-10 and 13-14, Belfiore et al. teach



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wherein the schemas are described by an extensible markup language – col. 13, lines 32-44; col. 14, line 35 to col. 15, line 5.

### ***Response to Arguments***

Applicant's arguments filed 11/30/07 have been fully considered but they are not persuasive. Applicants have amended independent claims 7 and 11 to include providing compatibility between new and old versions of a schema that are used for ...both an old version and a new version of ...allowing expansion of the ...while...present in the old version of the schema into the new version of the schema so that the new and the old schema versions are both upward compatible and downward compatible. The new combination of references is hereby provided for the new ground of rejection.

Schema store and different base schemas for different applications are the additional/further teachings of Belfiore et al.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LINH BLACK  
Examiner  
Art Unit 2163

February 15, 2008.

LW



LESLIE WONG  
PRIMARY EXAMINER